

PLATE V.

- Fig. 1. *Cicada castanea* Davis. Type.
Fig. 2. *Cicada arizona* Davis. Type.
Fig. 3. *Cicada eugraphica* Davis. Type.
Fig. 4. *Cicada texana* Davis. Type.
Fig. 5. *Cicada sordidata* Uhler.
Fig. 6. *Cicada arizona* Davis, enlarged.
Fig. 7. *Cicada eugraphica* Davis, enlarged.
Fig. 8. *Cicada texana* Davis, enlarged.

PLATE VI.

- Fig. 1. *Cicada reperta* Uhler.
Fig. 2. *Cicada delicata* Osborn.
Fig. 3. *Cicada vitripennis* Say.
Fig. 4. *Cicada erratica* Osborn.
Fig. 5. *Cicada hieroglyphica* Say.
Fig. 6. *Cicada johannis* Walker.
Fig. 7. *Cicada chisos* Davis. Type.

NEW DIPTERA OF THE FAMILY ASILIDÆ WITH
NOTES ON KNOWN SPECIES.

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While rearranging the museum material of the dipterous family Asilidæ, the following species were found among the unidentified material which appear to be new.

***Stenopogon tenebrosus* Coquillett.**

The type of this species is not in the National Museum as Back¹ erroneously states, but in the Museum of the Brooklyn Institute. The specimen has the type label in Coquillett's handwriting.

***Lasiopogon arizonensis* new species.**

Mystax white, pubescence of head anteriorly white, posteriorly yellowish. The usual median and lateral stripes of thorax brownish, median stripe very feebly divided by a paler line and not extending to the base, elsewhere the vestiture is gray; surface with a few short, white hairs, longer hairs poste-

¹ Trans. Am. Ent. Soc., XXXV, 207.

riorly white, two laterally brownish. Scutellum covered with a very fine gray pubescence, posterior margin with a few white bristles. Pleuræ and coxæ densely covered with white pubescence. Abdomen black, first segment with dense gray pubescence, following segments with a blackish-brown dust, posterior margins gray, the few hairs white, ventral segments grayish-white. Wings glossy-hyaline, veins brownish. Legs black, except from tibiæ in about basal two thirds and middle tibiæ narrowly at base yellowish; hairs not very abundant, white, bristles white. Length 8.5 mm.

Huachuca Mts., Arizona. (Schaeffer). One male in excellent condition.

This neat little species differs principally from those so far known by the coloration of the abdomen and legs.

Eccritosisia amphinome Walker.

Of this handsome species I have taken a female in the Huachuca Mts., Arizona. It is reported in the Aldrich catalogue from Lower California, Mexico, Guatemala and Honduras.

Erax subcupreus new species.

Head grayish-white pollinose, except the facial tubercle, which is almost without pollen and shows the brownish-submetallic ground color; mystax with white and black hairs and bristles; occipito-orbital and ocellar hairs and bristles black; beard white; palpi black, with black hairs and bristles. Thorax brownish-metallic, with grayish-white and brownish-gray pollen; median line with a rather dense crest of erect, black hairs, which does not extend to the scutellum, between the crest and the scutellum are moderately long, white hairs, intermixed with some black bristles. Scutellum somewhat densely clothed with moderately long white hairs and along the apical margin with some black bristles. Pleuræ feebly pollinose and with sparse darker and white hairs. Abdomen black with very faint brownish-metallic tint, segments one to five with long white hairs, parted at middle and directed outwards, those on the first segment are only on the thickened apical margin and on the second covering about apical third of the segment; segments six and seven grayish-white pollinose and covered with shorter white hairs. Hypopygium black with sparse gray and blackish hairs. Venter clothed with long white hairs which become shorter on the apical segments. Wings hyaline, slightly smoky towards the tip; costa distinctly thickened and dilated. Femora black with brownish submetallic tint, tibiæ brownish, at tip black, tarsi black; femora and tibiæ clothed with moderately long, white and gray hairs. Length 18 mm.

A single male from Prescott, Ariz., received from George Franck.

Apparently related to *E. costalis* Will. but with abdominal segments one to five, with long, white hairs. Williston, in his synoptic table of the species of *Erax*¹ gave the name *costalis* but neglected to

¹ Trans. Am. Ent. Soc., Vol. XII, p. 64.

give a description of the species. The species is not given in Aldrich's catalogue of North American Diptera, but is sufficiently characterized in the table to entitle it to recognition.

Erax subpilosus new species.

Head grayish-white pollinose, beard and mystax white, occipito-orbital bristles white. Thorax black, faintly grayish-brown pollinose, middorsal stripe faint; dorsum sparsely covered with short, black hairs, which are longer apically. Scutellum with black hairs and bristles, some of which are white apically. Pleuræ faintly pollinose, covered not densely with moderately long, white hairs. Abdomen black, first to third segments with black hairs, longer at sides, fourth segment with long white hairs intermixed with black hairs, which are directed outwardly, fifth segment white pollinose and with shorter white hairs, sixth and seventh segments densely white pollinose; apical margins of segments two to five grayish pollinose. Venter grayish-white pollinose covered with long, white hairs. Hypopygium black, clothed with shorter, white hairs. Wings pure hyaline. Legs entirely black, clothed with shorter and longer white hairs. Length 22 mm.

Beaver Creek Hills, Beaver Co., Utah, two males. (Doll and Engelhardt.)

The first three segments of the abdomen are clothed with black hairs, the fourth and fifth with white hairs, the hairs on the fourth segment are longer and more numerous than in most of the species but not as dense as in *stamineus*, *rapax* or *pallidus*.

Erax californicus new species.

Male.—Head grayish-white pollinose, mystax yellowish-white, beard white, occipito-orbital bristles black. Thorax black, dark grayish pollinose, dorsal stripes faint, dorsum with short, black hairs, which are longer apically. Scutellum with white hairs, apical bristles black. Pleuræ dark gray pollinose as the thorax and with moderately long, white hairs. Abdominal segments widely pale-grayish pollinose at sides, black and feebly shining along the middle, segments one to three with longer white hairs at sides, segments four to seven with sparse, shorter white hairs. Hypopygium black, clothed with sparse, short white hairs. Wings with a very slight yellowish-brown tinge. Legs black except the tibiae which are at base reddish, densely clothed with rather long, white pile.

Female.—Colored as the male but the white hairs on the legs are shorter. The ovipositor is moderately long. Length 25–28 mm.

Shasta Co., Cal., male and female received from George Franck.

Another specimen, a smaller male from the same locality, has the abdominal segments four to seven almost entirely uniformly greyish-pollinose, otherwise it agrees with the larger specimen.

Promachus nigropilosus new species.

Head grayish-white pollinose, beard and mystax white, the latter with a few black hairs intermixed; occipito-orbital bristles black. Thorax black, somewhat shining, very faintly grayish pollinose; one brownish median and on each side a more or less distinct lateral stripe; dorsum clothed sparsely with short, black hairs, bristles black. Pleuræ very faintly pollinose and with sparse, black hairs; humeri reddish. Abdomen black, shining, sides of the segments rather feebly gray pollinose, apical margins even more faintly grayish pollinose; dorsum and venter with sparse, short, black hairs, at sides of the first few segments the hairs are longer. Hypopygium densely covered with silky white hairs. Wings pure hyaline. Legs black, except the outer surface of the front and middle femora, the upper side of hind femora and the greater part of the tibiæ which are reddish, covered with short, sparse, black hairs and bristles, except the front femora, which has the hairs mostly grayish-white. Length 21 mm.

One male, Shasta, Co., Cal., received from George Franck.

In Hine's key to the species of *Promachus*¹ this new species would go near *minusculus* from which it differs in being more shining and having no white hairs on thorax and abdomen, except on the hypopygium. The pollinosity of thorax and abdomen is also much more feeble than in any other species.

Asilus hypopygialis new species.

Head white pollinose, facial gibbosity moderately large, not reaching to the antennæ, mystax black above, white below, beard white; ocellar and occipito-orbital bristles black; third joint of antennæ a little longer than the two preceding joints, arista nearly as long as the third joint. Thorax covered with yellowish-gray dust; brown median stripe prominent and divided narrowly; pleura covered rather densely with a paler gray dust and with very few white hairs. Scutellum almost without hairs, two apical bristles black. Abdomen covered with grayish-brown pollen, venter, sides and base of the second to fourth segments with gray pollen; hairs on the dorsum blackish, bristles and hairs at sides and venter white. Hypopygium thickened, at middle distinctly wider than the abdomen, black, at apex reddish, covered sparsely with white hairs. Wings hyaline, slightly clouded towards apex. Legs reddish-brown, except the outer side of the femora, tip of tibiæ and tarsal joints three to five, which are black; femora and tibiæ sparsely hairy. Length 15 mm.

One male, Beaver Canon, Utah (Doll and Engelhardt).

This species belongs in the subgenus or group *Heligmoneura*. The male genitalia are nearly two millimeters wide at apex.

¹ Ann. Ent. Soc. Am., Vol. IV, p. 165.

***Asilus fulviventris* new species.**

Head densely clothed with yellowish-gray pollen; beard white; mystax yellowish-white with a few black hairs above; ocellar bristles white; occipito-orbital bristles black; palpi black with white hairs. Thorax densely covered with yellowish-gray pollen; dark median stripe prominent, divided by a narrow line; pleuræ densely grayish-white pollinose and with a few white hairs. Scutellum almost without any hairs, four apical bristles pale. Wings glassy hyaline. Abdomen, except the first and second segment, which are grayish-white pollinose, densely and uniformly covered with fulvous pollen, apical margins paler, hairs and bristles at sides concolorous; last segment and hypopygium shining black, the latter with a few white hairs. Legs uniformly black, covered sparsely with white hairs and white bristles. Length 11 mm.

One male, Huachuca Mts., Arizona (Schaeffer).

The uniformly colored fulvous abdomen, contrasting with the greyish-white pleuræ and the entirely black legs with white hairs and bristles ought to make this neat little species easy recognizable.

***Ommatius parvulus* new species.**

Head white pollinose, beard white, mystax yellowish-white with a few black hairs above; antennæ black; palpi black with white hairs. Thorax dull blackish-brown and marked nearly as in *marginellus*. Pleuræ densely white pollinose with a few white hairs. Wings hyaline, apex slightly smoky, costa not thickened nor dilated. Abdomen black, sides and apical margins of segments gray pollinose and very sparsely covered with short, white hairs. Hypopygium black, claspers truncate at apex. All the femora black, covered sparsely with white hairs, which are a little longer on front and middle than on hind femora, the latter beneath with a few white, spine-like bristles; tibiæ yellowish, at tip black, tarsi, except the first joint, black. Length 9 mm.

Huachuca Mts., Arizona (Schaeffer).

This species differs from *O. maculatus* Banks in having the thorax dull, not shining and the hypopygium black, and from *O. pretiosus* Banks by the blackish abdomen and the hind femora of the male with spine-like bristles beneath.